11575380

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* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page for STN Seminar Schedule - N. America
NEWS 2	JUL 28	CA/CAplus patent coverage enhanced
NEWS 3	JUL 28	EPFULL enhanced with additional legal status information from the epoline Register
NEWS 4	JUL 28	IFICDB, IFIPAT, and IFIUDB reloaded with enhancements
NEWS 5	JUL 28	STN Viewer performance improved
NEWS 6	AUG 01	INPADOCDB and INPAFAMDB coverage enhanced
NEWS 7	AUG 13	CA/CAplus enhanced with printed Chemical Abstracts page images from 1967-1998
NEWS 8	AUG 15	CAOLD to be discontinued on December 31, 2008
NEWS 9	AUG 15	CAplus currency for Korean patents enhanced
NEWS 10	AUG 27	CAS definition of basic patents expanded to ensure comprehensive access to substance and sequence information
NEWS 11	SEP 18	Support for STN Express, Versions 6.01 and earlier, to be discontinued
NEWS 12	SEP 25	CA/CAplus current-awareness alert options enhanced to accommodate supplemental CAS indexing of exemplified prophetic substances
NEWS 13	SEP 26	WPIDS, WPINDEX, and WPIX coverage of Chinese and and Korean patents enhanced
NEWS 14	SEP 29	IFICLS enhanced with new super search field
NEWS 15	SEP 29	EMBASE and EMBAL enhanced with new search and display fields
NEWS 16	SEP 30	CAS patent coverage enhanced to include exemplified prophetic substances identified in new Japanese-language patents
NEWS 17	OCT 07	EPFULL enhanced with full implementation of EPC2000
NEWS 18	OCT 07	Multiple databases enhanced for more flexible patent number searching
NEWS 19	OCT 22	Current-awareness alert (SDI) setup and editing enhanced
NEWS 20	OCT 22	WPIDS, WPINDEX, and WPIX enhanced with Canadian PCT Applications
NEWS 21	OCT 24	CHEMLIST enhanced with intermediate list of pre-registered REACH substances

NEWS EXPRESS JUNE 27 08 CURRENT WINDOWS VERSION IS V8.3,
AND CURRENT DISCOVER FILE IS DATED 23 JUNE 2008.

NEWS HOURS STN Operating Hours Plus Help Desk Availability

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NEWS LOGIN Welcome Banner and News Items
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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* * * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 13:53:34 ON 19 NOV 2008

=>
Uploading
THIS COMMAND NOT AVAILABLE IN THE CURRENT FILE
Do you want to switch to the Registry File?
Choice (Y/n):
Switching to the Registry File...
Some commands only work in certain files. For example, the EXPAND command can only be used to look at the index in a file which has an index. Enter "HELP COMMANDS" at an arrow prompt (=>) for a list of commands which can be used in this file.

=> FILE REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 13:53:46 ON 19 NOV 2008
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 18 NOV 2008 HIGHEST RN 1073232-10-6
DICTIONARY FILE UPDATES: 18 NOV 2008 HIGHEST RN 1073232-10-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

11575380

=>
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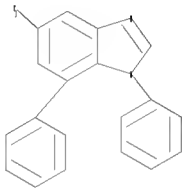
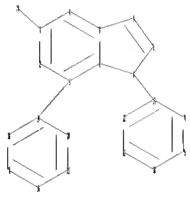




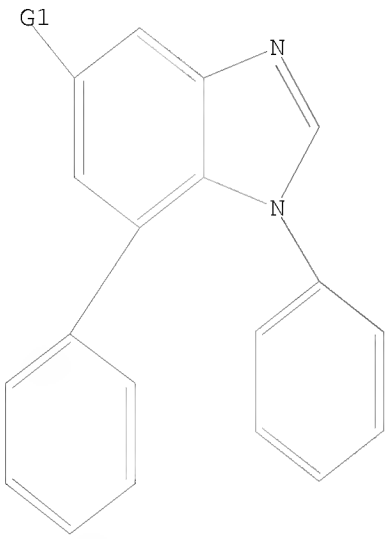
chain nodes :
24
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
chain bonds :
1-19 3-24 6-13
ring bonds :
1-2 1-7 2-3 3-4 4-8 5-6 5-9 6-7 7-8 8-9 10-11 10-15 11-12 12-13 13-14
14-15 16-17 16-21 17-18 18-19 19-20 20-21
exact/norm bonds :
3-24 5-6 5-9 6-7 6-13 8-9
exact bonds :
1-19
normalized bonds :
1-2 1-7 2-3 3-4 4-8 7-8 10-11 10-15 11-12 12-13 13-14 14-15 16-17
16-21 17-18 18-19 19-20 20-21
isolated ring systems :
containing 1 : 10 : 16 :

G1:CF3,MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,CN,NO2,X,Ak

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 24:CLASS

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 CF3,MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,CN,NO2,X,Ak

Structure attributes must be viewed using STN Express query preparation.

=> s l1
SAMPLE SEARCH INITIATED 13:54:06 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 31 TO ITERATE

100.0% PROCESSED 31 ITERATIONS 5 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 286 TO 954
PROJECTED ANSWERS: 5 TO 234

L2 5 SEA SSS SAM L1

=> s l1 sss full
FULL SEARCH INITIATED 13:54:13 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 659 TO ITERATE

100.0% PROCESSED 659 ITERATIONS 76 ANSWERS
SEARCH TIME: 00.00.01

L3 76 SEA SSS FUL L1

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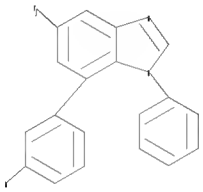
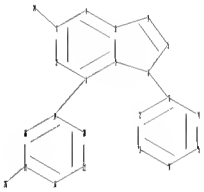




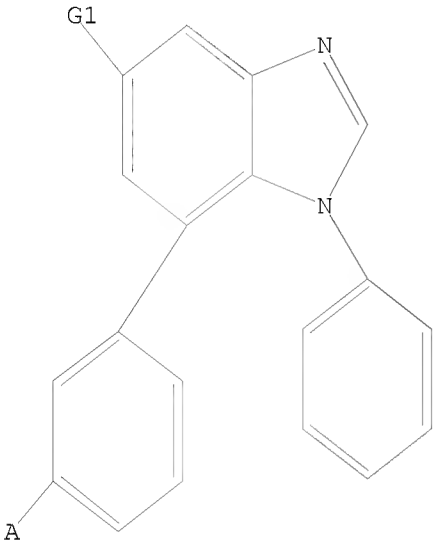
chain nodes :
24 26
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
chain bonds :
1-19 3-24 6-13 17-26
ring bonds :
1-2 1-7 2-3 3-4 4-8 5-6 5-9 6-7 7-8 8-9 10-11 10-15 11-12 12-13 13-14
14-15 16-17 16-21 17-18 18-19 19-20 20-21
exact/norm bonds :
3-24 5-6 5-9 6-7 6-13 8-9 17-26
exact bonds :
1-19
normalized bonds :
1-2 1-7 2-3 3-4 4-8 7-8 10-11 10-15 11-12 12-13 13-14 14-15 16-17
16-21 17-18 18-19 19-20 20-21
isolated ring systems :
containing 1 : 10 : 16 :

G1:CF3,MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,CN,NO2,X,Ak

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
20:Atom 21:Atom 24:CLASS 26:CLASS

L4 STRUCTURE UPLOADED

=> d l4
L4 HAS NO ANSWERS
L4 STR



G1 CF3,MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,CN,NO2,X,Ak

Structure attributes must be viewed using STN Express query preparation.

=> s l4
SAMPLE SEARCH INITIATED 13:55:37 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 31 TO ITERATE

100.0% PROCESSED 31 ITERATIONS 4 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 286 TO 954
PROJECTED ANSWERS: 4 TO 200

L5 4 SEA SSS SAM L4

=> s l4 sss full
FULL SEARCH INITIATED 13:55:43 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 659 TO ITERATE

100.0% PROCESSED 659 ITERATIONS 59 ANSWERS
SEARCH TIME: 00.00.01

L6 59 SEA SSS FUL L4

=> FIL HCAPLUS
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 357.18 357.39

FILE 'HCAPLUS' ENTERED AT 13:55:47 ON 19 NOV 2008
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FILE COVERS 1907 - 19 Nov 2008 VOL 149 ISS 21
FILE LAST UPDATED: 18 Nov 2008 (20081118/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l3
L7 3 L3

=> s l6
L8 3 L6

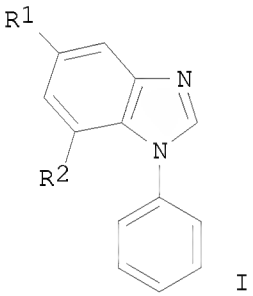
=> d l7 ibib abs hitstr tot

L7 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:395281 HCAPLUS
DOCUMENT NUMBER: 142:447213
TITLE: A preparation of 1,5,7-trisubstituted benzimidazole derivatives, useful as modulator of GABAA receptor
INVENTOR(S): Hamilton, Niall Morton; Napier, Susan Elizabeth; Easson, Morag Ann Maccall; Cooke, Andrew John; Teuber, Lene; Mirza, Naheed; Waetjen, Frank
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Neurosearch A/S
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
WO 2005040131	A1	20050506	WO 2004-EP52582		20041020
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW					
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG					
EP 1678144	A1	20060712	EP 2004-791257		20041020
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK					
JP 2007509108	T	20070412	JP 2006-536085		20041020
US 20070021482	A1	20070125	US 2006-575380		20060411
PRIORITY APPLN. INFO.:			DK 2003-1566	A	20031023
			US 2003-513609P	P	20031024
			WO 2004-EP52582	W	20041020

OTHER SOURCE(S): CASREACT 142:447213; MARPAT 142:447213

GI



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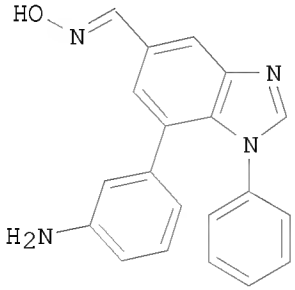


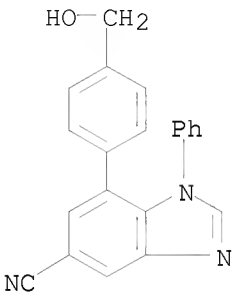
II

AB The invention relates to a preparation of 1,5,7-trisubstituted benzimidazole derivs. of formula I [wherein: R1 is halogen, CF3, CN, NO2, alkyl, or alkoxy, etc.; R2 is (un)substituted phenyl], useful as modulator of GABAa receptor. The invention compds. are useful in the treatment of central nervous system diseases and disorders, which are responsive to modulation of GABAA receptor. For instance, (aminophenyl)benzimidazole oxime derivative II (IC50 = 0.0042 μM) was prepared via reduction and N-formylation of 7-(3-aminophenyl)-5-cyano-1-phenylbenzimidazole and subsequent oxime-formation of the obtained 7-[3-(formylamino)phenyl]-5-formyl-1-phenylbenzimidazole (yields: reduction/formylation - 27%, oxime formation - 13%).

IT 851230-13-2P, 5-Cyano-7-(4-hydroxymethylphenyl)-1-phenylbenzimidazole 851230-14-3P 851230-30-3P, 5-Ethoxycarbonyl-1-phenyl-7-(3-trifluoromethoxyphenyl)benzimidazole
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT

(Reactant or reagent)
(intermediate; preparation of 1,5,7-trisubstituted benzimidazole derivs. useful as modulator of GABAA receptor)

RN 851230-13-2 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[4-(hydroxymethyl)phenyl]-1-phenyl- (CA INDEX NAME)



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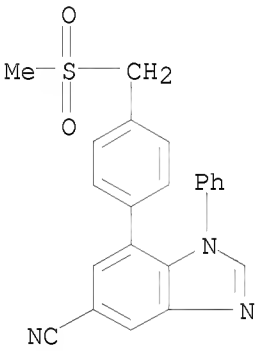
CN 1H-Benzimidazole-5-carbonitrile, 7-[4-[(methylsulfonyl)methyl]phenyl]-1-phenyl- (CA INDEX NAME)



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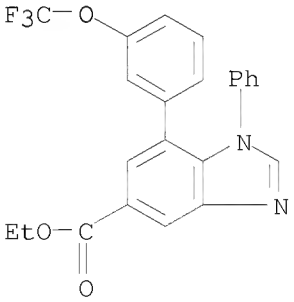
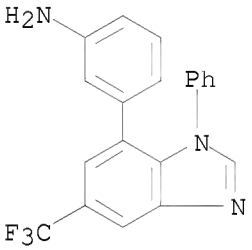


IT 159726-00-8P, 7-(3-Aminophenyl)-1-phenyl-5-trifluoromethylbenzimidazole 851229-48-6P, 7-(3-Aminophenyl)-5-cyano-1-phenylbenzimidazole 851229-55-5P, 7-[3-(Hydroxymethyl)phenyl]-1-phenyl-5-trifluoromethylbenzimidazole 851229-57-7P, 7-(3-Acetamidophenyl)-5-ethoxycarbonyl-1-phenylbenzimidazole 851229-59-9P, 7-(3-Aminophenyl)-5-ethoxycarbonyl-1-phenylbenzimidazole 851229-60-2P, 5-(Ethoxycarbonyl)-7-[3-(hydroxymethyl)phenyl]-1-phenylbenzimidazole 851229-65-7P, 5-Cyano-7-(3-hydroxymethylphenyl)-1-phenylbenzimidazole 851229-87-3P, 5-Cyano-7-(4-hydroxyphenyl)-1-phenylbenzimidazole 851229-89-5P 851230-06-3P, 7-(3-Acetamidophenyl)-1-phenyl-5-trifluoromethylbenzimidazole 851230-34-7P, 7-(3-Acetylphenyl)-1-phenyl-5-trifluoromethylbenzimidazole 851230-44-9P, 7-[3-(1-Hydroxyethyl)phenyl]-1-phenyl-5-trifluoromethylbenzimidazole 851363-74-1P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of 1,5,7-trisubstituted benzimidazole derivs. useful as modulator of GABAA receptor)

RN 159726-00-8 HCAPLUS
CN Benzenamine, 3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



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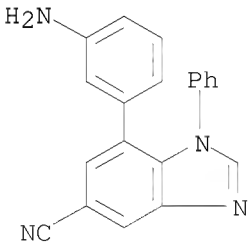

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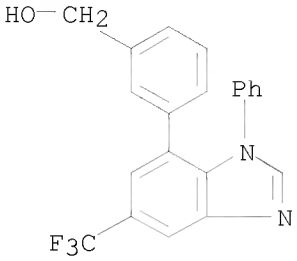

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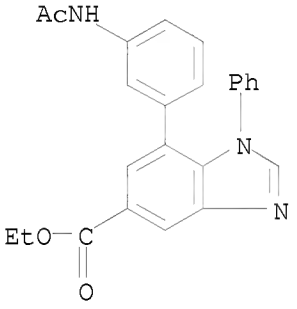

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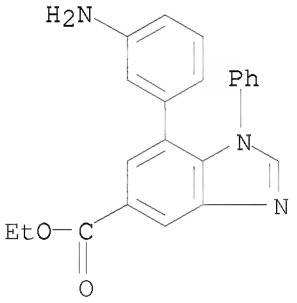

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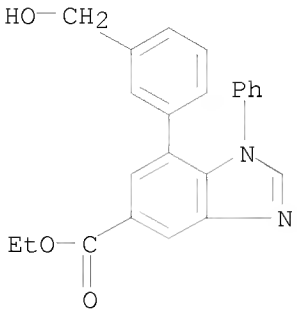

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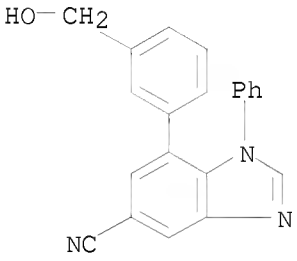

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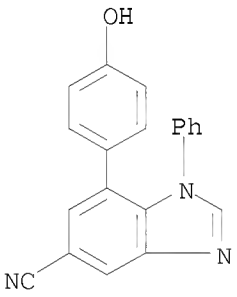

RN 851229-89-5 HCAPLUS
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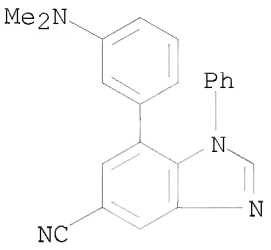
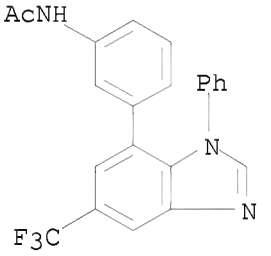
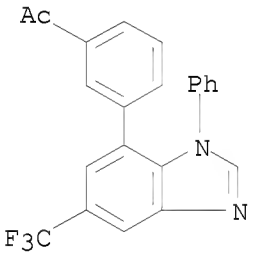


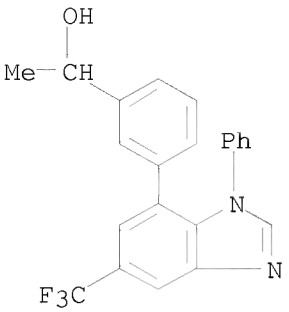
RN 851230-06-3 HCAPLUS
CN Acetamide, N-[3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]phenyl]- (CA INDEX NAME)



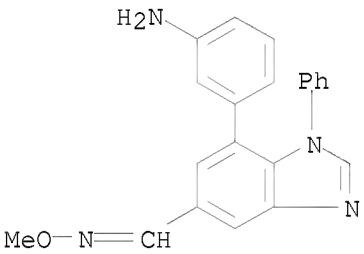
RN 851230-34-7 HCAPLUS
CN Ethanone, 1-[3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]phenyl]- (CA INDEX NAME)



RN 851230-44-9 HCAPLUS
CN Benzenemethanol, α-methyl-3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



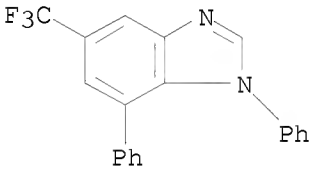
RN 851363-74-1 HCAPLUS
CN 1H-Benzimidazole-5-carboxaldehyde, 7-(3-aminophenyl)-1-phenyl-, O-methyloxime (CA INDEX NAME)



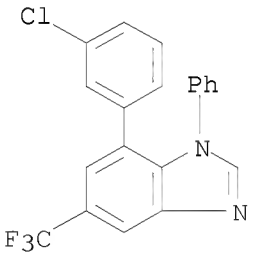
IT 159726-03-1P, 1,7-Diphenyl-5-trifluoromethylbenzimidazole
851229-46-4P, 7-(3-Chlorophenyl)-1-phenyl-5-trifluoromethylbenzimidazole 851229-47-5P 851229-56-6P, 1-Phenyl-7-[3-(1,2,3,6-tetrahydropyridin-1-ylmethyl)phenyl]-5-trifluoromethylbenzimidazole 851229-61-3P 851229-63-5P, 5-Cyano-7-(3-nitrophenyl)-1-phenylbenzimidazole 851229-66-8P 851229-68-0P, 5-Cyano-7-[3-[(1-methylpiperazin-4-yl)methyl]phenyl]-1-phenylbenzimidazole 851229-69-1P 851229-73-7P, 5-Cyano-7-[3-(diethylaminomethyl)phenyl]-1-phenylbenzimidazole 851229-74-8P 851229-78-2P, 7-(3-Acetamidophenyl)-5-cyano-1-phenylbenzimidazole 851229-80-6P, 5-Cyano-7-(4-methoxyphenyl)-1-phenylbenzimidazole 851229-82-8P, 5-Cyano-7-(3-methoxyphenyl)-1-phenylbenzimidazole 851229-84-0P, 5-Cyano-7-(4-cyanophenyl)-1-phenylbenzimidazole 851229-86-2P, 5-Cyano-7-(3-fluorophenyl)-1-phenylbenzimidazole 851229-95-3P, 7-(3-Aminophenyl)-5-hydroxymethyl-1-phenylbenzimidazole 851229-96-4P 851229-98-6P 851229-99-7P, 5-Ethoxycarbonyl-7-[3-[(dimethylamino)methyl]phenyl]-1-phenylbenzimidazole 851230-00-7P, 5-Cyano-7-(3-cyanophenyl)-1-phenylbenzimidazole 851230-02-9P, 5-Cyano-7-(4-nitrophenyl)-1-phenylbenzimidazole 851230-04-1P, 7-(4-Acetamidophenyl)-5-cyano-1-phenylbenzimidazole 851230-08-5P 851230-10-9P 851230-12-1P 851230-16-5P 851230-17-6P, 7-(3-Acetamidophenyl)-5-hydroxymethyl-1-phenylbenzimidazole 851230-18-7P 851230-19-8P, 7-(3-Dimethylaminophenyl)-5-trifluoromethyl-1-phenylbenzimidazole 851230-20-1P, 7-(3-Methylaminophenyl)-5-trifluoromethyl-1-

phenylbenzimidazole 851230-21-2P,
1-Phenyl-7-[3-[(4-methylpiperazin-1-yl)methyl]phenyl]-5-
trifluoromethylbenzimidazole 851230-23-4P 851230-24-5P
, 7-[3-[(Dimethylamino)methyl]phenyl]-1-phenyl-5-
trifluoromethylbenzimidazole 851230-25-6P,
5-Cyano-7-[4-[2-(4-morpholino)ethoxy]phenyl]-1-phenylbenzimidazole
851230-26-7P 851230-27-8P,
7-[3-(N-Methylacetamido)phenyl]-1-phenyl-5-trifluoromethylbenzimidazole
851230-29-0P, 5-(Hydroxymethyl)-1-phenyl-7-(3-
trifluoromethoxyphenyl)benzimidazole 851230-35-8P,
7-(3-Fluorophenyl)-1-phenyl-5-trifluoromethylbenzimidazole
851230-40-5P, 5-tert-Butyl-7-(3-dimethylaminophenyl)-1-
phenylbenzimidazole 851230-41-6P 851230-43-8P,
7-[3-(1-Methoxyethyl)phenyl]-1-phenyl-5-trifluoromethylbenzimidazole
851230-56-3P 851230-58-5P,
7-(3-Fluorophenyl)-5-methyl-1-phenylbenzimidazole 851230-59-6P
851230-89-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES
(Uses)
(preparation of 1,5,7-trisubstituted benzimidazole derivs. useful as
modulator of GABAA receptor)

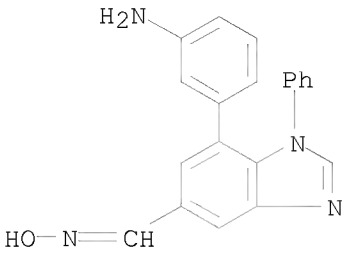
RN 159726-03-1 HCAPLUS
CN 1H-Benzimidazole, 1,7-diphenyl-5-(trifluoromethyl)- (CA INDEX NAME)



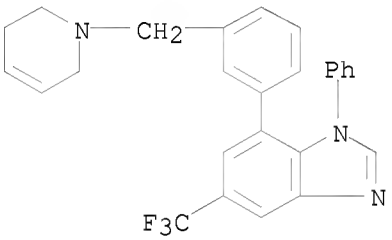
RN 851229-46-4 HCAPLUS
CN 1H-Benzimidazole, 7-(3-chlorophenyl)-1-phenyl-5-(trifluoromethyl)- (CA
INDEX NAME)



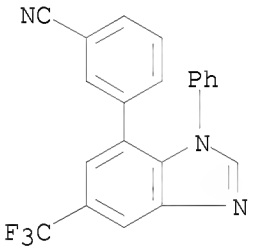
RN 851229-47-5 HCAPLUS
CN 1H-Benzimidazole-5-carboxaldehyde, 7-(3-aminophenyl)-1-phenyl-, oxime (CA
INDEX NAME)



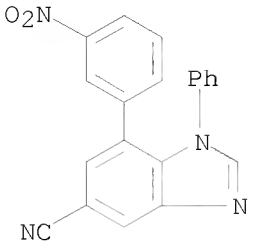
RN 851229-56-6 HCAPLUS
CN 1H-Benzimidazole, 7-[3-[(3,6-dihydro-1(2H)-pyridinyl)methyl]phenyl]-1-phenyl-5-(trifluoromethyl)- (CA INDEX NAME)



RN 851229-61-3 HCAPLUS
CN Benzonitrile, 3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



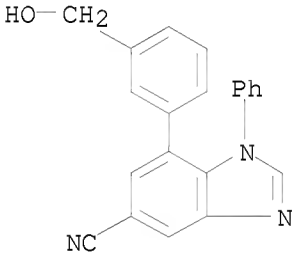
RN 851229-63-5 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-(3-nitrophenyl)-1-phenyl- (CA INDEX NAME)



RN 851229-66-8 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[3-(hydroxymethyl)phenyl]-1-phenyl-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

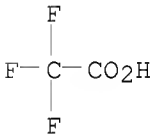
CM 1

CRN 851229-65-7
CMF C21 H15 N3 O

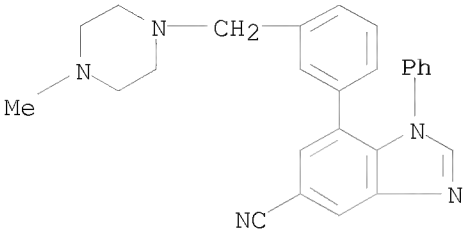


CM 2

CRN 76-05-1
CMF C2 H F3 O2



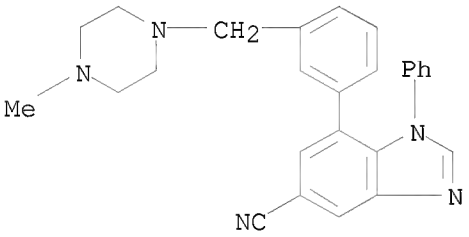
RN 851229-68-0 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[3-[(4-methyl-1-piperazinyl)methyl]phenyl]-1-phenyl- (CA INDEX NAME)



RN 851229-69-1 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[3-[(4-methyl-1-piperazinyl)methyl]phenyl]-1-phenyl-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

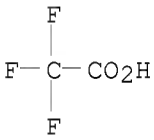
CM 1

CRN 851229-68-0
CMF C26 H25 N5

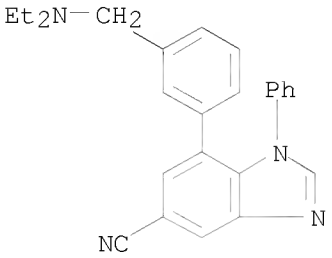


CM 2

CRN 76-05-1
CMF C2 H F3 O2



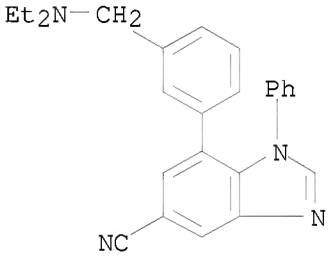
RN 851229-73-7 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[3-[(diethylamino)methyl]phenyl]-1-phenyl- (CA INDEX NAME)



RN 851229-74-8 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[3-[(diethylamino)methyl]phenyl]-1-phenyl-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

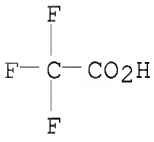
CM 1

CRN 851229-73-7
CMF C25 H24 N4

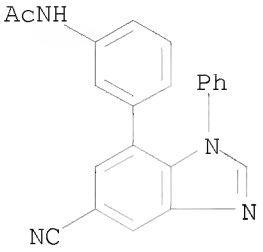


CM 2

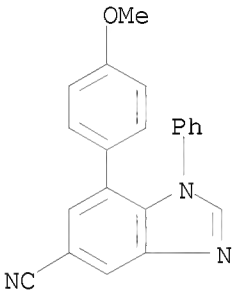
CRN 76-05-1
CMF C2 H F3 O2



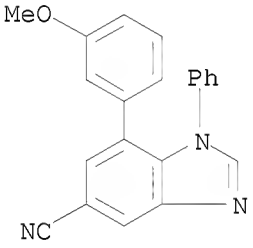
RN 851229-78-2 HCAPLUS
CN Acetamide, N-[3-(5-cyano-1-phenyl-1H-benzimidazol-7-yl)phenyl]- (CA INDEX NAME)



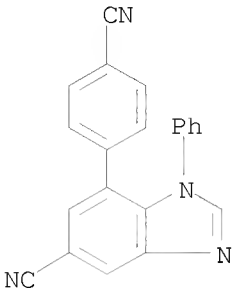
RN 851229-80-6 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-(4-methoxyphenyl)-1-phenyl- (CA INDEX NAME)



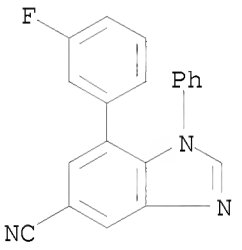
RN 851229-82-8 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-(3-methoxyphenyl)-1-phenyl- (CA INDEX NAME)



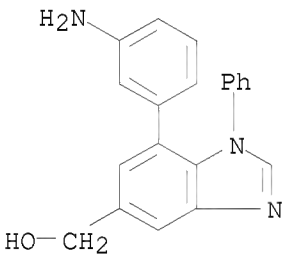
RN 851229-84-0 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-(4-cyanophenyl)-1-phenyl- (CA INDEX NAME)



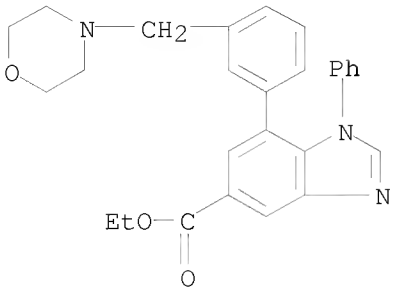
RN 851229-86-2 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-(3-fluorophenyl)-1-phenyl- (CA INDEX NAME)



RN 851229-95-3 HCAPLUS
CN 1H-Benzimidazole-5-methanol, 7-(3-aminophenyl)-1-phenyl- (CA INDEX NAME)

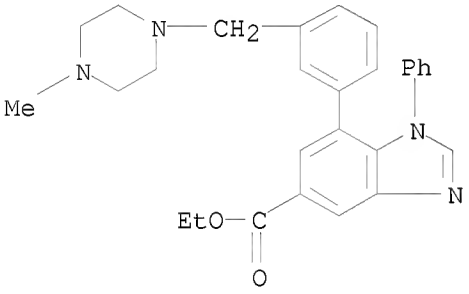


RN 851229-96-4 HCAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 7-[3-(4-morpholinylmethyl)phenyl]-1-phenyl-, ethyl ester, hydrochloride (1:1) (CA INDEX NAME)



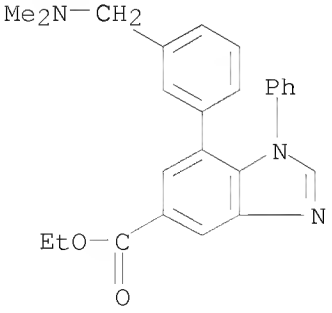
● HCl

RN 851229-98-6 HCAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 7-[3-[(4-methyl-1-piperazinyl)methyl]phenyl]-1-phenyl-, ethyl ester, hydrochloride (1:1) (CA INDEX NAME)

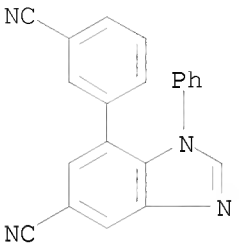


● HCl

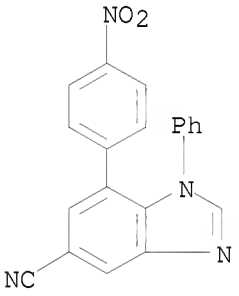
RN 851229-99-7 HCAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 7-[3-[(dimethylamino)methyl]phenyl]-1-phenyl-, ethyl ester (CA INDEX NAME)



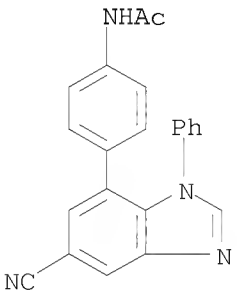
RN 851230-00-7 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-(3-cyanophenyl)-1-phenyl- (CA INDEX NAME)



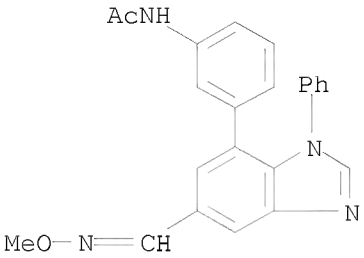
RN 851230-02-9 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-(4-nitrophenyl)-1-phenyl- (CA INDEX NAME)



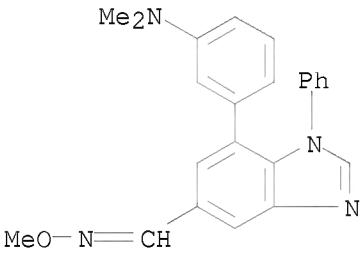
RN 851230-04-1 HCAPLUS
CN Acetamide, N-[4-(5-cyano-1-phenyl-1H-benzimidazol-7-yl)phenyl]- (CA INDEX NAME)



RN 851230-08-5 HCAPLUS
CN Acetamide, N-[3-[5-[(methoxyimino)methyl]-1-phenyl-1H-benzimidazol-7-yl]phenyl]- (CA INDEX NAME)



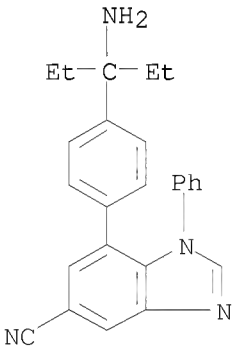
RN 851230-10-9 HCAPLUS
CN 1H-Benzimidazole-5-carboxaldehyde, 7-[3-(dimethylamino)phenyl]-1-phenyl-, O-methyloxime (CA INDEX NAME)



RN 851230-12-1 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[4-(1-amino-1-ethylpropyl)phenyl]-1-phenyl-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

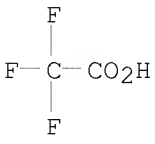
CM 1

CRN 851230-11-0
CMF C25 H24 N4



CM 2

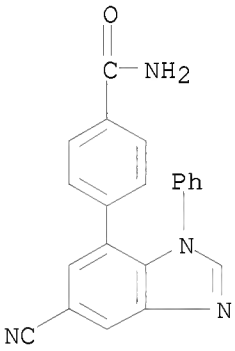
CRN 76-05-1
CMF C2 H F3 O2



RN 851230-16-5 HCAPLUS
CN Benzamide, 4-(5-cyano-1-phenyl-1H-benzimidazol-7-yl)-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

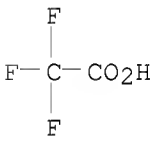
CM 1

CRN 851230-15-4
CMF C21 H14 N4 O

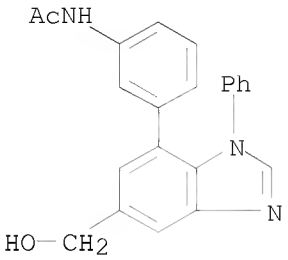


CM 2

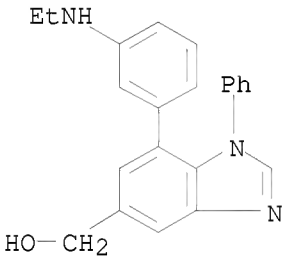
CRN 76-05-1
CMF C2 H F3 O2



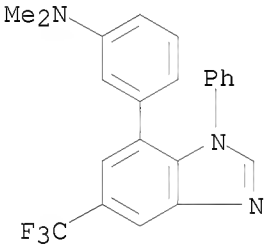
RN 851230-17-6 HCAPLUS
CN Acetamide, N-[3-[5-(hydroxymethyl)-1-phenyl-1H-benzimidazol-7-yl]phenyl]- (CA INDEX NAME)



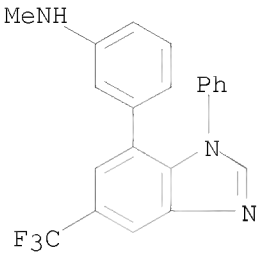
RN 851230-18-7 HCAPLUS
CN 1H-Benzimidazole-5-methanol, 7-[3-(ethylamino)phenyl]-1-phenyl- (CA INDEX NAME)



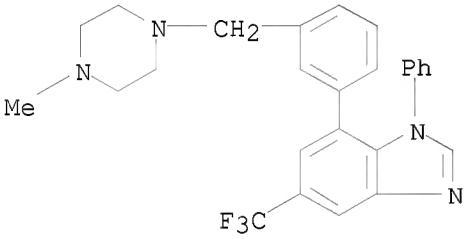
RN 851230-19-8 HCAPLUS
CN Benzenamine, N,N-dimethyl-3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



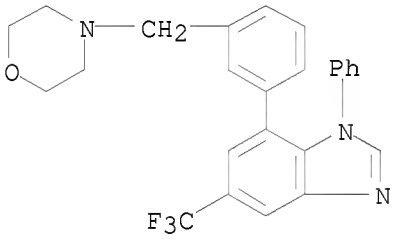
RN 851230-20-1 HCAPLUS
CN Benzenamine, N-methyl-3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



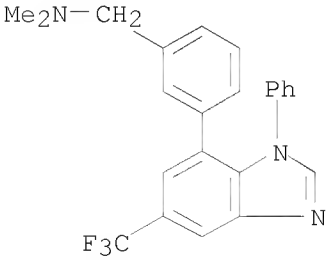
RN 851230-21-2 HCAPLUS
CN 1H-Benzimidazole, 7-[3-[(4-methyl-1-piperazinyl)methyl]phenyl]-1-phenyl-5-(trifluoromethyl)- (CA INDEX NAME)



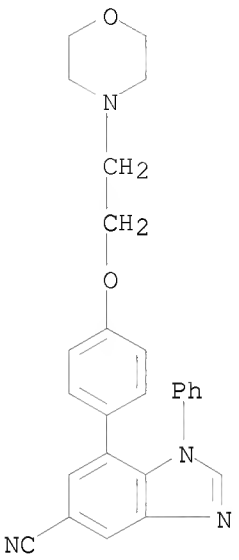
RN 851230-23-4 HCAPLUS
CN 1H-Benzimidazole, 7-[3-(4-morpholinylmethyl)phenyl]-1-phenyl-5-(trifluoromethyl)- (CA INDEX NAME)



RN 851230-24-5 HCAPLUS
CN Benzenemethanamine, N,N-dimethyl-3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



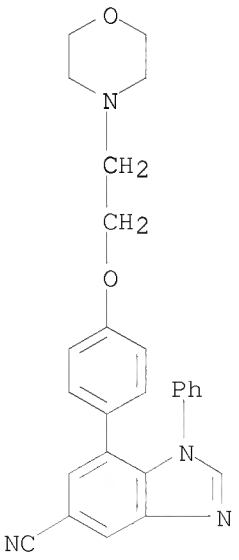
RN 851230-25-6 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[4-[2-(4-morpholinyl)ethoxy]phenyl]-1-phenyl- (CA INDEX NAME)



RN 851230-26-7 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[4-[2-(4-morpholinyl)ethoxy]phenyl]-1-phenyl-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

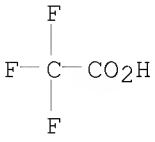
CM 1

CRN 851230-25-6
CMF C26 H24 N4 O2

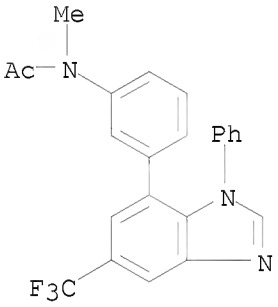


CM 2

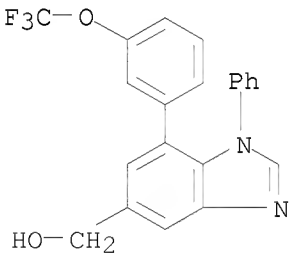
CRN 76-05-1
CMF C2 H F3 O2



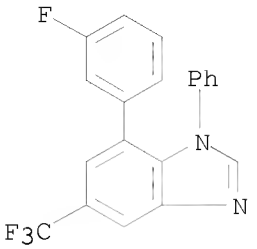
RN 851230-27-8 HCAPLUS
CN Acetamide, N-methyl-N-[3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]phenyl]- (CA INDEX NAME)



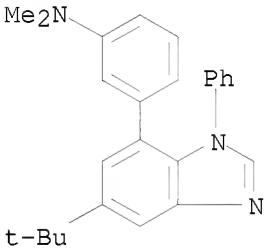
RN 851230-29-0 HCAPLUS
CN 1H-Benzimidazole-5-methanol, 1-phenyl-7-[3-(trifluoromethoxy)phenyl]- (CA INDEX NAME)



RN 851230-35-8 HCAPLUS
CN 1H-Benzimidazole, 7-(3-fluorophenyl)-1-phenyl-5-(trifluoromethyl)- (CA INDEX NAME)



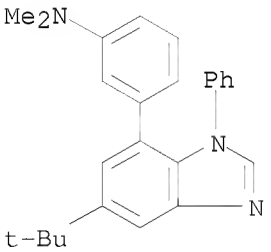
RN 851230-40-5 HCAPLUS
CN Benzenamine, 3-[5-(1,1-dimethylethyl)-1-phenyl-1H-benzimidazol-7-yl]-N,N-dimethyl- (CA INDEX NAME)



RN 851230-41-6 HCAPLUS
CN Benzenamine, 3-[5-(1,1-dimethylethyl)-1-phenyl-1H-benzimidazol-7-yl]-N,N-dimethyl-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

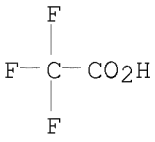
CM 1

CRN 851230-40-5
CMF C25 H27 N3

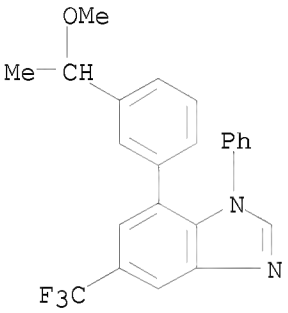


CM 2

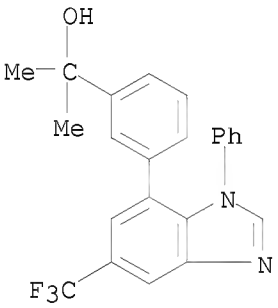
CRN 76-05-1
CMF C2 H F3 O2



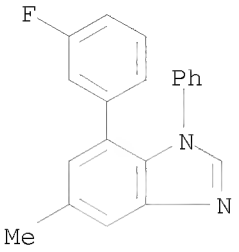
RN 851230-43-8 HCAPLUS
CN 1H-Benzimidazole, 7-[3-(1-methoxyethyl)phenyl]-1-phenyl-5-(trifluoromethyl)- (CA INDEX NAME)



RN 851230-56-3 HCAPLUS
CN Benzenemethanol, α,α-dimethyl-3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



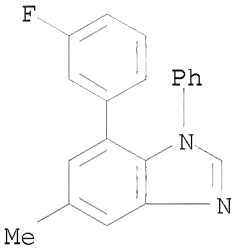
RN 851230-58-5 HCAPLUS
CN 1H-Benzimidazole, 7-(3-fluorophenyl)-5-methyl-1-phenyl- (CA INDEX NAME)



RN 851230-59-6 HCAPLUS
CN 1H-Benzimidazole, 7-(3-fluorophenyl)-5-methyl-1-phenyl-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

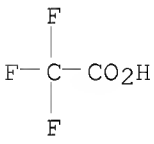
CM 1

CRN 851230-58-5
CMF C20 H15 F N2

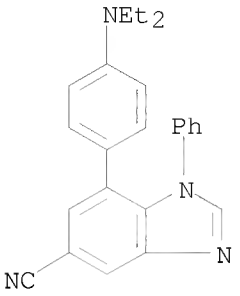


CM 2

CRN 76-05-1
CMF C2 H F3 O2

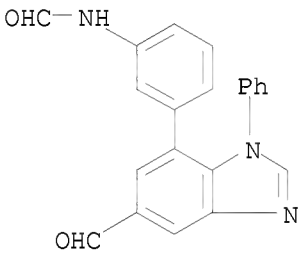


RN 851230-89-2 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[4-(diethylamino)phenyl]-1-phenyl- (CA INDEX NAME)

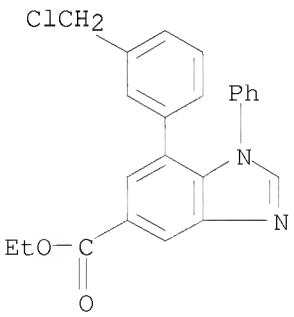


IT 851229-49-7P, 7-[3-(Formylamino)phenyl]-5-formyl-1-phenylbenzimidazole 851229-97-5P, 5-Ethoxycarbonyl-7-[3-(chloromethyl)phenyl]-1-phenylbenzimidazole 851230-22-3P, 7-[3-(Chloromethyl)phenyl]-1-phenyl-5-trifluoromethylbenzimidazole
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 1,5,7-trisubstituted benzimidazole derivs. useful as modulator of GABAA receptor)

RN 851229-49-7 HCAPLUS
CN Formamide, N-[3-(5-formyl-1-phenyl-1H-benzimidazol-7-yl)phenyl]- (CA INDEX NAME)

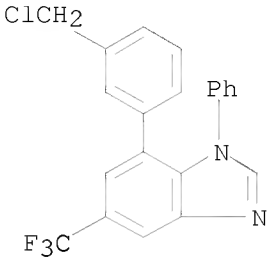


RN 851229-97-5 HCAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 7-[3-(chloromethyl)phenyl]-1-phenyl-, ethyl ester (CA INDEX NAME)

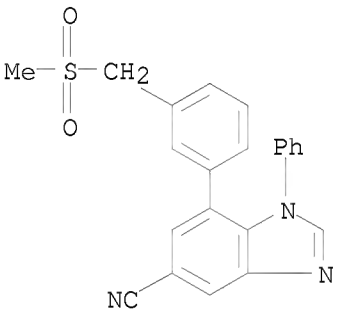


RN 851230-22-3 HCAPLUS

CN 1H-Benzimidazole, 7-[3-(chloromethyl)phenyl]-1-phenyl-5-(trifluoromethyl)- (CA INDEX NAME)



IT 851229-76-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; preparation of 1,5,7-trisubstituted benzimidazole derivs. useful as modulator of GABAA receptor)
RN 851229-76-0 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[3-[(methylsulfonyl)methyl]phenyl]-1-phenyl- (CA INDEX NAME)



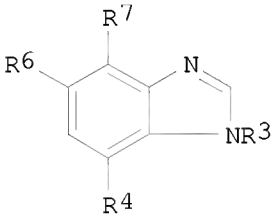
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:580566 HCAPLUS
DOCUMENT NUMBER: 125:300997
ORIGINAL REFERENCE NO.: 125:56339a,56342a
TITLE: Benzimidazole compounds useful as benzodiazepine receptor ligands
INVENTOR(S): Teuber, Lene; Axelsson, Oskar; Watjen, Frank
PATENT ASSIGNEE(S): Neurosearch A/s, Den.; Meiji Seika Kaisha, Ltd.
SOURCE: U.S., 19 pp., Cont.-in-part of U.S. Ser. No. 207,774, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

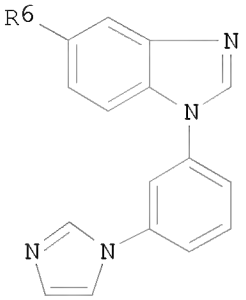
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 5554630	A	19960910	US 1995-410572		19950324
ZA 9402079	A	19941024	ZA 1994-2079		19940324
US 5554632	A	19960910	US 1994-352585		19941209
PRIORITY APPLN. INFO.:			DK 1993-337	A	19930324
			DK 1993-1055	A	19930921
			US 1994-207774	B2	19940308

OTHER SOURCE(S): MARPAT 125:300997
GI



I



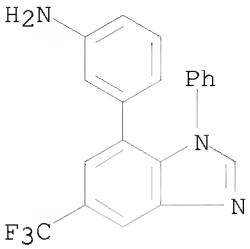
II

AB The invention discloses title compds. I [R3 = certain (un)substituted (hetero)aryl groups; R4 = H, NH2, NO2, cyano, halo, acylamino, (un)substituted aryl; or R4 forms bridges to aryl ring of R3; R6, R7 = H, halo, NH2, NO2, cyano, acylamino, CF3, (un)substituted aryl; or R6 and R7 form certain optionally heteroatom-containing bridges] and their pharmaceutically acceptable salts, as well as the medical use of a broader class of 1-arylbenzimidazoles, including I. The compds. are useful for the treatment of various central nervous system disorders such as epilepsy and other convulsive disorders, anxiety, sleep disorders, and memory disorders. For example, 2-amino-3'-iodo-4-(trifluoromethyl)diphenylamine (preparation given) underwent cyclocondensation with formic acid at reflux, and coupling with imidazole in the presence of K2CO3 and CuBr at 200°, to give title compound II [R6 = CF3]. In an in-vivo test for inhibition of [3H]-flunitrazepam specific binding to mouse forebrain GABAA receptors, II [R6 = CF3] had an ED50 of 7.3 mg/kg i.p., and II [R6 = Me] had an ED50 of 0.8 mg/kg i.p.

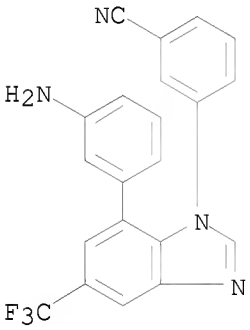
IT 159726-00-8P 159726-01-9P 159726-03-1P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzimidazole derivs. as benzodiazepine receptor ligands)

RN 159726-00-8 HCAPLUS

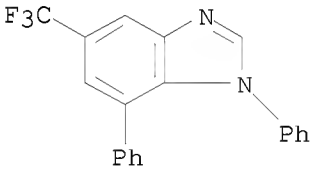
CN Benzenamine, 3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



RN 159726-01-9 HCAPLUS
CN Benzonitrile, 3-[7-(3-aminophenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]- (CA INDEX NAME)



RN 159726-03-1 HCAPLUS
CN 1H-Benzimidazole, 1,7-diphenyl-5-(trifluoromethyl)- (CA INDEX NAME)



L7 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:252476 HCAPLUS
DOCUMENT NUMBER: 122:31527
ORIGINAL REFERENCE NO.: 122:6227a,6230a
TITLE: Preparation of benzimidazole derivatives for the treatment of central nervous system disorders.
INVENTOR(S): Axelsson, Oskar; Teuber, Lene; Watjen, Frank
PATENT ASSIGNEE(S): Neurosearch A/S, Den.; Meiji Seika Kaisha Ltd.
SOURCE: Eur. Pat. Appl., 35 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2

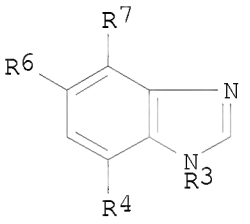
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 616807	A1	19940928	EP 1994-610012	19940311
EP 616807	B1	19980708		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
AU 9457521	A	19940929	AU 1994-57521	19940303
AU 675484	B2	19970206		
AT 168007	T	19980715	AT 1994-610012	19940311
ES 2119124	T3	19981001	ES 1994-610012	19940311
CA 2119511	A1	19940925	CA 1994-2119511	19940321
CA 2119511	C	20020716		
NO 9401052	A	19940926	NO 1994-1052	19940323
CN 1099391	A	19950301	CN 1994-103348	19940323
CN 1057088	C	20001004		
FI 9401378	A	19940925	FI 1994-1378	19940324
FI 113651	B1	20040531		
ZA 9402079	A	19941024	ZA 1994-2079	19940324
JP 07002838	A	19950106	JP 1994-78094	19940324
JP 3466265	B2	20031110		

PRIORITY APPLN. INFO.: DK 1993-337 A 19930324
DK 1993-1055 A 19930921

OTHER SOURCE(S): MARPAT 122:31527

GI



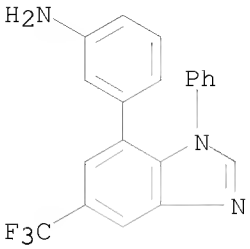
I

AB Benzimidazole compds. I (R3 = substituted Ph, pyridinyl, etc.; R4 = H, amino, nitro, etc.; R6, R7 = H, halo, cyano, nitro, etc.) were disclosed for the treatment of various central nervous system disorders such as epilepsy and other convulsive disorders, anxiety, sleep disorders and memory disorders.

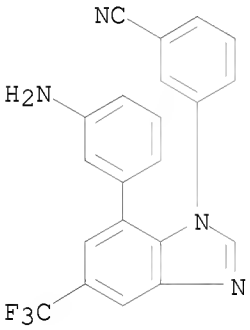
IT 159726-00-8P 159726-01-9P 159726-03-1P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of benzimidazole derivs. GABA receptor antagonists or agonists)

RN 159726-00-8 HCAPLUS

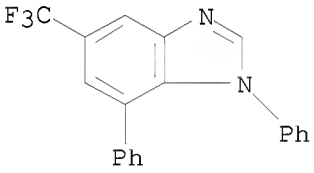
CN Benzenamine, 3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



RN 159726-01-9 HCAPLUS
CN Benzonitrile, 3-[7-(3-aminophenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]- (CA INDEX NAME)



RN 159726-03-1 HCAPLUS
CN 1H-Benzimidazole, 1,7-diphenyl-5-(trifluoromethyl)- (CA INDEX NAME)



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L8 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:395281 HCAPLUS
DOCUMENT NUMBER: 142:447213
TITLE: A preparation of 1,5,7-trisubstituted benzimidazole derivatives, useful as modulator of GABAA receptor
INVENTOR(S): Hamilton, Niall Morton; Napier, Susan Elizabeth; Easson, Morag Ann Maccall; Cooke, Andrew John; Teuber, Lene; Mirza, Naheed; Waetjen, Frank
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Neurosearch A/S
SOURCE: PCT Int. Appl., 65 pp.

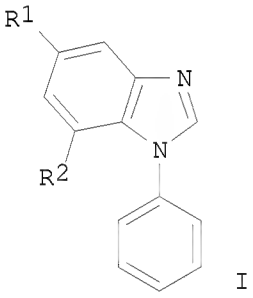
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005040131	A1	20050506	WO 2004-EP52582	20041020
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1678144	A1	20060712	EP 2004-791257	20041020
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
JP 2007509108	T	20070412	JP 2006-536085	20041020
US 20070021482	A1	20070125	US 2006-575380	20060411

PRIORITY APPLN. INFO.:
DK 2003-1566 A 20031023
US 2003-513609P P 20031024
WO 2004-EP52582 W 20041020

OTHER SOURCE(S): CASREACT 142:447213; MARPAT 142:447213

GI



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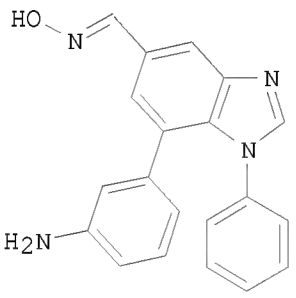

II

AB The invention relates to a preparation of 1,5,7-trisubstituted benzimidazole derivs. of formula I [wherein: R1 is halogen, CF3, CN, NO2, alkyl, or alkoxy, etc.; R2 is (un)substituted phenyl], useful as modulator of GABAa receptor. The invention compds. are useful in the treatment of central nervous system diseases and disorders, which are responsive to modulation of GABAA receptor. For instance, (aminophenyl)benzimidazole oxime derivative II (IC50 = 0.0042 μM) was prepared via reduction and N-formylation of 7-(3-aminophenyl)-5-cyano-1-phenylbenzimidazole and subsequent oxime-formation of the obtained 7-[3-(formylamino)phenyl]-5-formyl-1-phenylbenzimidazole (yields: reduction/formylation - 27%, oxime formation -

13%).
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:580566 HCAPLUS
DOCUMENT NUMBER: 125:300997
ORIGINAL REFERENCE NO.: 125:56339a,56342a
TITLE: Benzimidazole compounds useful as benzodiazepine receptor ligands
INVENTOR(S): Teuber, Lene; Axelsson, Oskar; Watjen, Frank
PATENT ASSIGNEE(S): Neurosearch A/s, Den.; Meiji Seika Kaisha, Ltd.
SOURCE: U.S., 19 pp., Cont.-in-part of U.S. Ser. No. 207,774, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5554630	A	19960910	US 1995-410572	19950324
ZA 9402079	A	19941024	ZA 1994-2079	19940324
US 5554632	A	19960910	US 1994-352585	19941209
PRIORITY APPLN. INFO.:			DK 1993-337 A	19930324
			DK 1993-1055 A	19930921
			US 1994-207774 B2	19940308

OTHER SOURCE(S): MARPAT 125:300997
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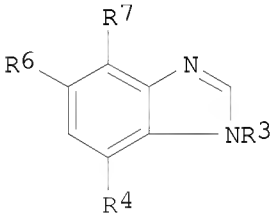

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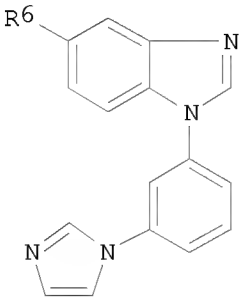

II

AB The invention discloses title compds. I [R3 = certain (un)substituted (hetero)aryl groups; R4 = H, NH2, NO2, cyano, halo, acylamino, (un)substituted aryl; or R4 forms bridges to aryl ring of R3; R6, R7 = H, halo, NH2, NO2, cyano, acylamino, CF3, (un)substituted aryl; or R6 and R7 form certain optionally heteroatom-containing bridges] and their pharmaceutically acceptable salts, as well as the medical use of a broader class of 1-arylbenzimidazoles, including I. The compds. are useful for the treatment of various central nervous system disorders such as epilepsy and other convulsive disorders, anxiety, sleep disorders, and memory

disorders. For example, 2-amino-3'-iodo-4-(trifluoromethyl)diphenylamine (preparation given) underwent cyclocondensation with formic acid at reflux, and coupling with imidazole in the presence of K2CO3 and CuBr at 200°, to give title compound II [R6 = CF3]. In an in-vivo test for inhibition of [3H]-flunitrazepam specific binding to mouse forebrain GABAA receptors, II [R6 = CF3] had an ED50 of 7.3 mg/kg i.p., and II [R6 = Me] had an ED50 of 0.8 mg/kg i.p.

L8 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:252476 HCAPLUS
DOCUMENT NUMBER: 122:31527
ORIGINAL REFERENCE NO.: 122:6227a,6230a
TITLE: Preparation of benzimidazole derivatives for the treatment of central nervous system disorders.
INVENTOR(S): Axelsson, Oskar; Teuber, Lene; Watjen, Frank
PATENT ASSIGNEE(S): Neurosearch A/S, Den.; Meiji Seika Kaisha Ltd.
SOURCE: Eur. Pat. Appl., 35 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 616807	A1	19940928	EP 1994-610012	19940311
EP 616807	B1	19980708		
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AU 9457521	A	19940929	AU 1994-57521	19940303
AU 675484	B2	19970206		
AT 168007	T	19980715	AT 1994-610012	19940311
ES 2119124	T3	19981001	ES 1994-610012	19940311
CA 2119511	A1	19940925	CA 1994-2119511	19940321
CA 2119511	C	20020716		
NO 9401052	A	19940926	NO 1994-1052	19940323
CN 1099391	A	19950301	CN 1994-103348	19940323
CN 1057088	C	20001004		
FI 9401378	A	19940925	FI 1994-1378	19940324
FI 113651	B1	20040531		
ZA 9402079	A	19941024	ZA 1994-2079	19940324
JP 07002838	A	19950106	JP 1994-78094	19940324
JP 3466265	B2	20031110		

PRIORITY APPLN. INFO.: DK 1993-337 A 19930324
DK 1993-1055 A 19930921
OTHER SOURCE(S): MARPAT 122:31527
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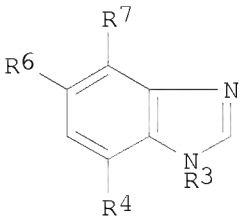

I

AB Benzimidazole compds. I (R3 = substituted Ph, pyridinyl, etc.; R4 = H, amino, nitro, etc.; R6, R7 = H, halo, cyano, nitro, etc.) were disclosed for the treatment of various central nervous system disorders such as epilepsy and other convulsive disorders, anxiety, sleep disorders and memory disorders.

=> FIL REGISTRY

COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	41.22	398.61

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-4.80	-4.80

FILE 'REGISTRY' ENTERED AT 13:59:08 ON 19 NOV 2008

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 18 NOV 2008 HIGHEST RN 1073232-10-6
DICTIONARY FILE UPDATES: 18 NOV 2008 HIGHEST RN 1073232-10-6

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/support/stngen/stndoc/properties.html

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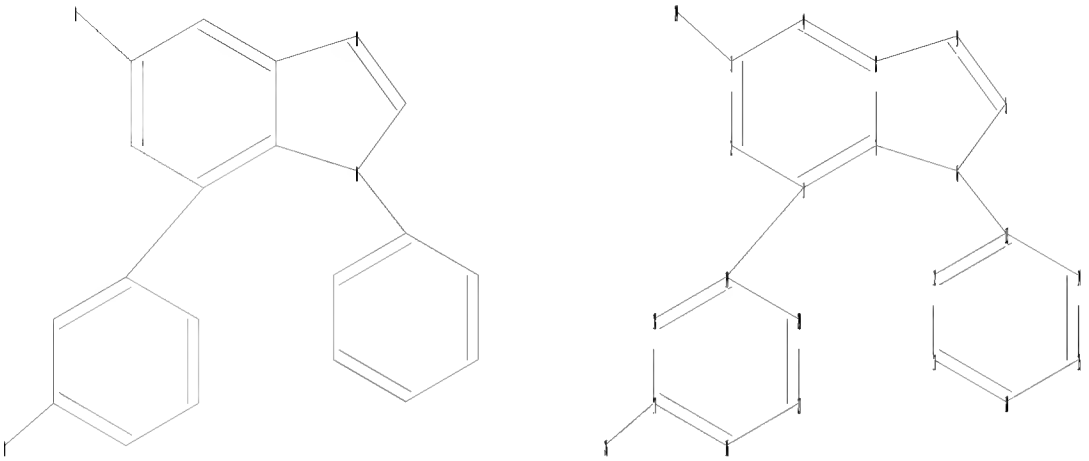

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24 26
ring nodes :
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21
chain bonds :
1-19 3-24 6-13 17-26
ring bonds :
1-2 1-7 2-3 3-4 4-8 5-6 5-9 6-7 7-8 8-9 10-11 10-15 11-12 12-13 13-14
14-15 16-17 16-21 17-18 18-19 19-20 20-21
exact/norm bonds :
3-24 5-6 5-9 6-7 6-13 8-9 17-26
exact bonds :
1-19
normalized bonds :
1-2 1-7 2-3 3-4 4-8 7-8 10-11 10-15 11-12 12-13 13-14 14-15 16-17
16-21 17-18 18-19 19-20 20-21
isolated ring systems :
containing 1 : 10 : 16 :

G1:CF3,MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,CN,NO2,X,Ak

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom
11:Atom 12:Atom 13:Atom 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom
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L9 HAS NO ANSWERS
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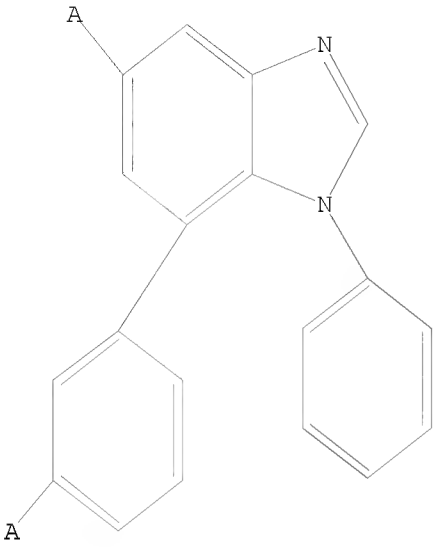

G1 CF3,MeO,EtO,n-PrO,i-PrO,n-BuO,i-BuO,CN,NO2,X,Ak

Structure attributes must be viewed using STN Express query preparation.

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SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:          784 TO     1736
PROJECTED ANSWERS:               4 TO      200

L10           4 SEA SSS SAM L9

=> s l9 sss full
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FULL SCREEN SEARCH COMPLETED -     1332 TO ITERATE

100.0% PROCESSED     1332 ITERATIONS                               59 ANSWERS
SEARCH TIME: 00.00.01

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=> FIL HCAPLUS
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FULL ESTIMATED COST                             178.36     576.97

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)    SINCE FILE      TOTAL
                                                   ENTRY    SESSION
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CA SUBSCRIBER PRICE 0.00 -4.80

FILE 'HCAPLUS' ENTERED AT 13:59:38 ON 19 NOV 2008
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PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

FILE COVERS 1907 - 19 Nov 2008 VOL 149 ISS 21
FILE LAST UPDATED: 18 Nov 2008 (20081118/ED)

HCAplus now includes complete International Patent Classification (IPC) reclassification data for the third quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s l11
L12 3 L11

=> d l12 ibib abs hitstr tot

L12 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 2005:395281 HCAPLUS
DOCUMENT NUMBER: 142:447213
TITLE: A preparation of 1,5,7-trisubstituted benzimidazole derivatives, useful as modulator of GABAA receptor
INVENTOR(S): Hamilton, Niall Morton; Napier, Susan Elizabeth; Easson, Morag Ann Maccall; Cooke, Andrew John; Teuber, Lene; Mirza, Naheed; Waetjen, Frank
PATENT ASSIGNEE(S): Akzo Nobel N.V., Neth.; Neurosearch A/S
SOURCE: PCT Int. Appl., 65 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2005040131	A1	20050506	WO 2004-EP52582	20041020
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI,				

NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY,
TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK,
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SN, TD, TG

EP 1678144	A1	20060712	EP 2004-791257	20041020
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, PL, SK				
JP 2007509108	T	20070412	JP 2006-536085	20041020
US 20070021482	A1	20070125	US 2006-575380	20060411
PRIORITY APPLN. INFO.:			DK 2003-1566	A 20031023
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			WO 2004-EP52582	W 20041020

OTHER SOURCE(S): CASREACT 142:447213; MARPAT 142:447213

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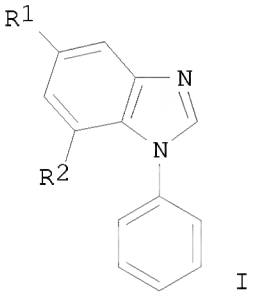

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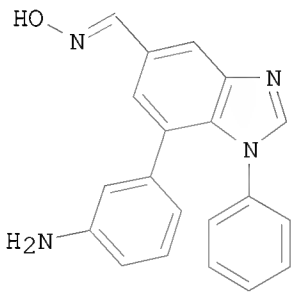


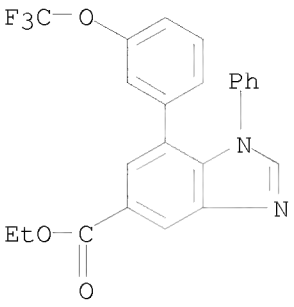
II

AB The invention relates to a preparation of 1,5,7-trisubstituted benzimidazole derivs. of formula I [wherein: R1 is halogen, CF3, CN, NO2, alkyl, or alkoxy, etc.; R2 is (un)substituted phenyl], useful as modulator of GABAa receptor. The invention compds. are useful in the treatment of central nervous system diseases and disorders, which are responsive to modulation of GABAA receptor. For instance, (aminophenyl)benzimidazole oxime derivative II (IC50 = 0.0042 μM) was prepared via reduction and N-formylation of 7-(3-aminophenyl)-5-cyano-1-phenylbenzimidazole and subsequent oxime-formation of the obtained 7-[3-(formylamino)phenyl]-5-formyl-1-phenylbenzimidazole (yields: reduction/formylation - 27%, oxime formation - 13%).

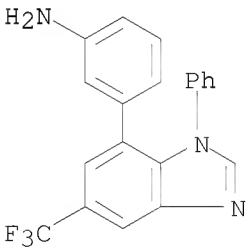
IT 851230-30-3P, 5-Ethoxycarbonyl-1-phenyl-7-(3-trifluoromethoxyphenyl)benzimidazole
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(intermediate; preparation of 1,5,7-trisubstituted benzimidazole derivs. useful as modulator of GABAA receptor)

RN 851230-30-3 HCAPLUS

CN 1H-Benzimidazole-5-carboxylic acid, 1-phenyl-7-[3-(trifluoromethoxy)phenyl]-, ethyl ester (CA INDEX NAME)



IT 159726-00-8P, 7-(3-Aminophenyl)-1-phenyl-5-trifluoromethylbenzimidazole 851229-48-6P, 7-(3-Aminophenyl)-5-cyano-1-phenylbenzimidazole 851229-55-5P, 7-[3-(Hydroxymethyl)phenyl]-1-phenyl-5-trifluoromethylbenzimidazole 851229-57-7P, 7-(3-Acetamidophenyl)-5-ethoxycarbonyl-1-phenylbenzimidazole 851229-59-9P, 7-(3-Aminophenyl)-5-ethoxycarbonyl-1-phenylbenzimidazole 851229-60-2P, 5-(Ethoxycarbonyl)-7-[3-(hydroxymethyl)phenyl]-1-phenylbenzimidazole 851229-65-7P, 5-Cyano-7-(3-hydroxymethylphenyl)-1-phenylbenzimidazole 851229-89-5P 851230-06-3P, 7-(3-Acetamidophenyl)-1-phenyl-5-trifluoromethylbenzimidazole 851230-34-7P, 7-(3-Acetylphenyl)-1-phenyl-5-trifluoromethylbenzimidazole 851230-44-9P, 7-[3-(1-Hydroxyethyl)phenyl]-1-phenyl-5-trifluoromethylbenzimidazole 851363-74-1P
RL: PAC (Pharmacological activity); RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(preparation of 1,5,7-trisubstituted benzimidazole derivs. useful as modulator of GABAA receptor)
RN 159726-00-8 HCAPLUS
CN Benzenamine, 3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



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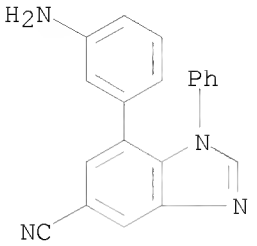

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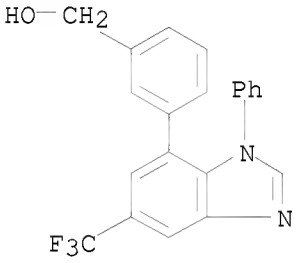

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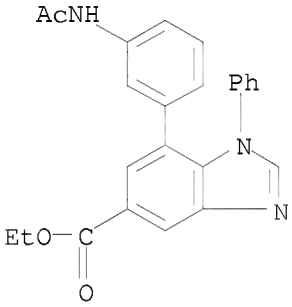

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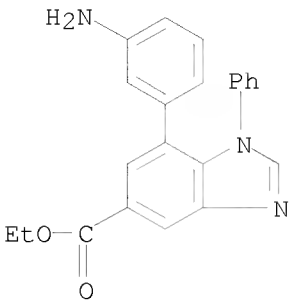

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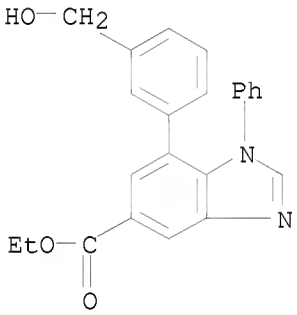
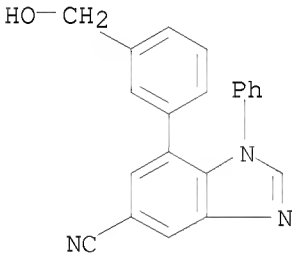
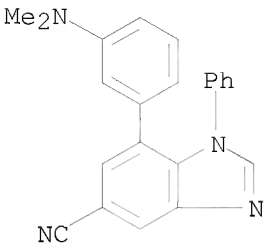


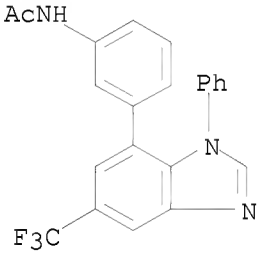
RN 851229-65-7 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[3-(hydroxymethyl)phenyl]-1-phenyl- (CA INDEX NAME)



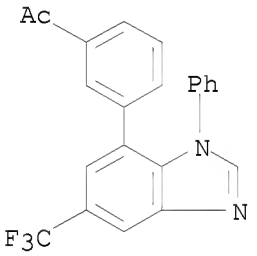
RN 851229-89-5 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[3-(dimethylamino)phenyl]-1-phenyl- (CA INDEX NAME)



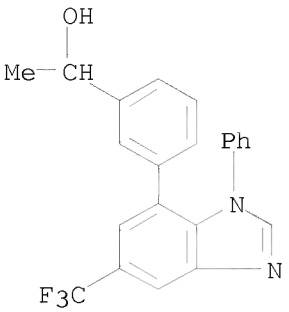
RN 851230-06-3 HCAPLUS
CN Acetamide, N-[3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]phenyl]- (CA INDEX NAME)



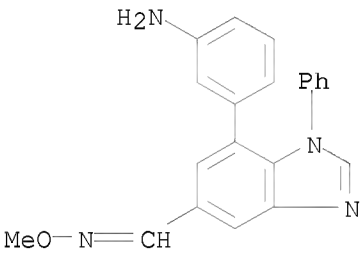
RN 851230-34-7 HCAPLUS
CN Ethanone, 1-[3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]phenyl]- (CA INDEX NAME)



RN 851230-44-9 HCAPLUS
CN Benzenemethanol, α-methyl-3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



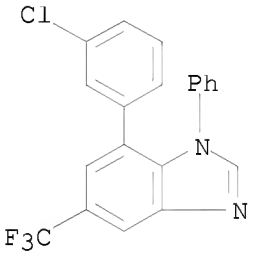
RN 851363-74-1 HCAPLUS
CN 1H-Benzimidazole-5-carboxaldehyde, 7-(3-aminophenyl)-1-phenyl-, O-methyloxime (CA INDEX NAME)



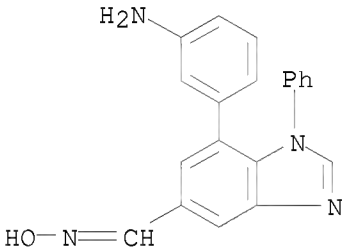
IT 851229-46-4P, 7-(3-Chlorophenyl)-1-phenyl-5-trifluoromethylbenzimidazole 851229-47-5P 851229-56-6P, 1-Phenyl-7-[3-(1,2,3,6-tetrahydropyridin-1-ylmethyl)phenyl]-5-trifluoromethylbenzimidazole 851229-61-3P 851229-63-5P, 5-Cyano-7-(3-nitrophenyl)-1-phenylbenzimidazole 851229-66-8P 851229-68-0P, 5-Cyano-7-[3-[(1-methylpiperazin-4-yl)methyl]phenyl]-1-phenylbenzimidazole 851229-69-1P 851229-73-7P, 5-Cyano-7-[3-(diethylaminomethyl)phenyl]-1-phenylbenzimidazole 851229-74-8P 851229-78-2P, 7-(3-Acetamidophenyl)-5-cyano-1-phenylbenzimidazole 851229-82-8P, 5-Cyano-7-(3-methoxyphenyl)-1-phenylbenzimidazole 851229-86-2P, 5-Cyano-7-(3-fluorophenyl)-1-phenylbenzimidazole 851229-95-3P, 7-(3-Aminophenyl)-5-hydroxymethyl-1-phenylbenzimidazole 851229-96-4P 851229-98-6P 851229-99-7P, 5-Ethoxycarbonyl-7-[3-[(dimethylamino)methyl]phenyl]-1-phenylbenzimidazole 851230-00-7P, 5-Cyano-7-(3-cyanophenyl)-1-phenylbenzimidazole 851230-08-5P 851230-10-9P 851230-17-6P, 7-(3-Acetamidophenyl)-5-hydroxymethyl-1-phenylbenzimidazole 851230-18-7P 851230-19-8P, 7-(3-Dimethylaminophenyl)-5-trifluoromethyl-1-phenylbenzimidazole 851230-20-1P, 7-(3-Methylaminophenyl)-5-trifluoromethyl-1-phenylbenzimidazole 851230-21-2P, 1-Phenyl-7-[3-[(4-methylpiperazin-1-yl)methyl]phenyl]-5-trifluoromethylbenzimidazole 851230-23-4P 851230-24-5P, 7-[3-[(Dimethylamino)methyl]phenyl]-1-phenyl-5-trifluoromethylbenzimidazole 851230-27-8P, 7-[3-(N-Methylacetamido)phenyl]-1-phenyl-5-trifluoromethylbenzimidazole

851230-29-0P, 5-(Hydroxymethyl)-1-phenyl-7-(3-trifluoromethoxyphenyl)benzimidazole 851230-35-8P, 7-(3-Fluorophenyl)-1-phenyl-5-trifluoromethylbenzimidazole 851230-40-5P, 5-tert-Butyl-7-(3-dimethylaminophenyl)-1-phenylbenzimidazole 851230-41-6P 851230-43-8P, 7-[3-(1-Methoxyethyl)phenyl]-1-phenyl-5-trifluoromethylbenzimidazole 851230-56-3P 851230-58-5P, 7-(3-Fluorophenyl)-5-methyl-1-phenylbenzimidazole 851230-59-6P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of 1,5,7-trisubstituted benzimidazole derivs. useful as modulator of GABAA receptor)

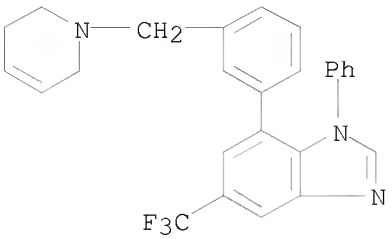
RN 851229-46-4 HCAPLUS
CN 1H-Benzimidazole, 7-(3-chlorophenyl)-1-phenyl-5-(trifluoromethyl)- (CA INDEX NAME)



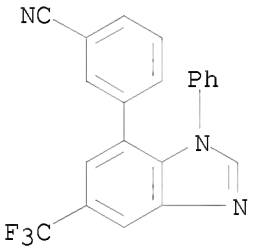
RN 851229-47-5 HCAPLUS
CN 1H-Benzimidazole-5-carboxaldehyde, 7-(3-aminophenyl)-1-phenyl-, oxime (CA INDEX NAME)



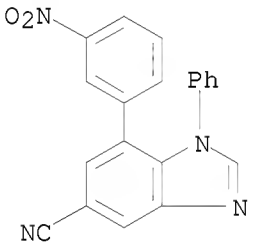
RN 851229-56-6 HCAPLUS
CN 1H-Benzimidazole, 7-[3-[(3,6-dihydro-1(2H)-pyridinyl)methyl]phenyl]-1-phenyl-5-(trifluoromethyl)- (CA INDEX NAME)



RN 851229-61-3 HCAPLUS
CN Benzonitrile, 3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



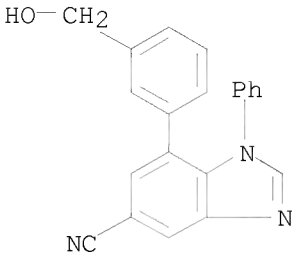
RN 851229-63-5 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-(3-nitrophenyl)-1-phenyl- (CA INDEX NAME)



RN 851229-66-8 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[3-(hydroxymethyl)phenyl]-1-phenyl-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

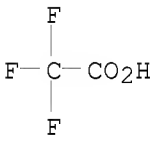
CM 1

CRN 851229-65-7
CMF C21 H15 N3 O

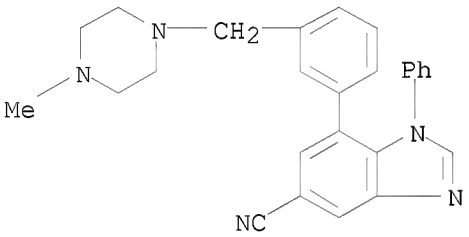


CM 2

CRN 76-05-1
CMF C2 H F3 O2



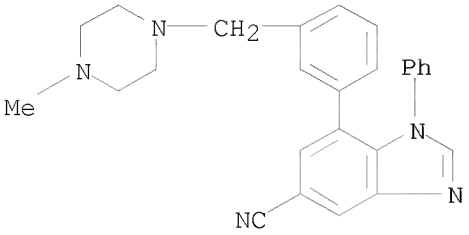
RN 851229-68-0 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[3-[(4-methyl-1-piperazinyl)methyl]phenyl]-1-phenyl- (CA INDEX NAME)



RN 851229-69-1 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[3-[(4-methyl-1-piperazinyl)methyl]phenyl]-1-phenyl-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

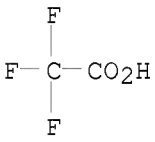
CM 1

CRN 851229-68-0
CMF C26 H25 N5

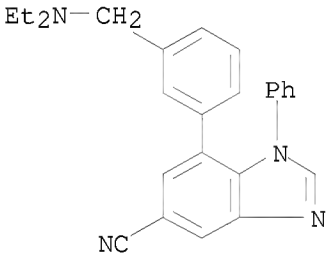


CM 2

CRN 76-05-1
CMF C2 H F3 O2



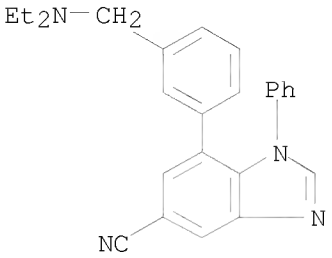
RN 851229-73-7 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[3-[(diethylamino)methyl]phenyl]-1-phenyl- (CA INDEX NAME)



RN 851229-74-8 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[3-[(diethylamino)methyl]phenyl]-1-phenyl-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

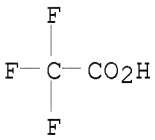
CM 1

CRN 851229-73-7
CMF C25 H24 N4

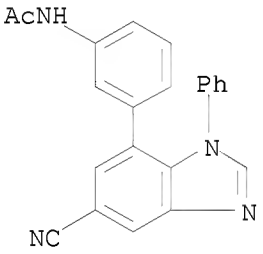


CM 2

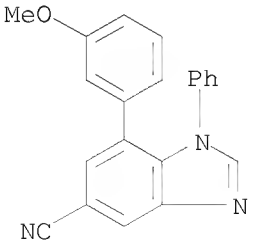
CRN 76-05-1
CMF C2 H F3 O2



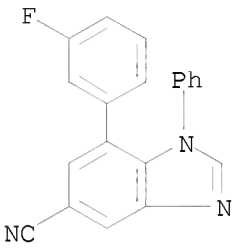
RN 851229-78-2 HCAPLUS
CN Acetamide, N-[3-(5-cyano-1-phenyl-1H-benzimidazol-7-yl)phenyl]- (CA INDEX NAME)



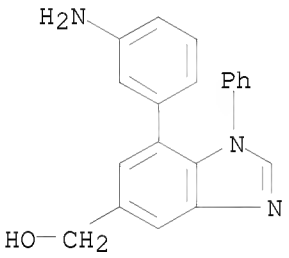
RN 851229-82-8 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-(3-methoxyphenyl)-1-phenyl- (CA INDEX NAME)



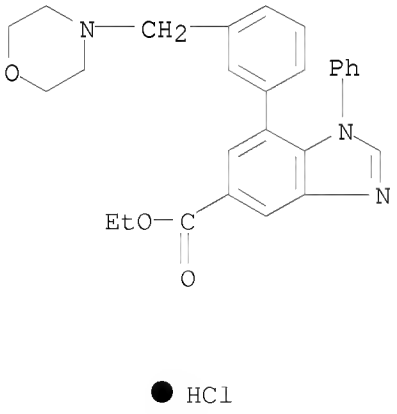
RN 851229-86-2 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-(3-fluorophenyl)-1-phenyl- (CA INDEX NAME)



RN 851229-95-3 HCAPLUS
CN 1H-Benzimidazole-5-methanol, 7-(3-aminophenyl)-1-phenyl- (CA INDEX NAME)

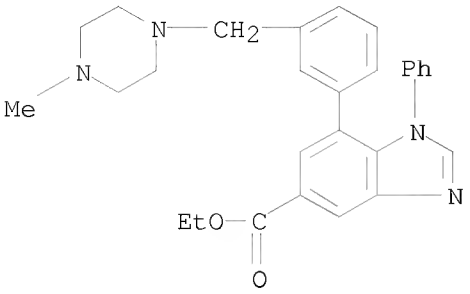


RN 851229-96-4 HCAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 7-[3-(4-morpholinylmethyl)phenyl]-1-phenyl-, ethyl ester, hydrochloride (1:1) (CA INDEX NAME)



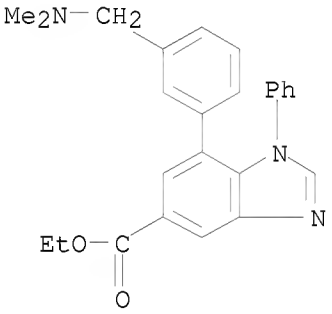
RN 851229-98-6 HCAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 7-[3-[(4-methyl-1-piperazinyl)methyl]phenyl]-1-phenyl-, ethyl ester,

hydrochloride (1:1) (CA INDEX NAME)

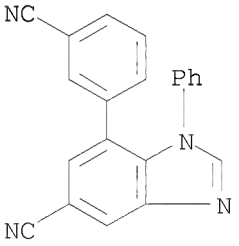


● HCl

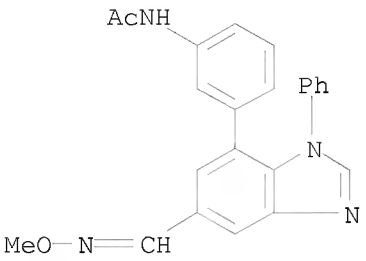
RN 851229-99-7 HCAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 7-[3-[(dimethylamino)methyl]phenyl]-1-phenyl-, ethyl ester (CA INDEX NAME)



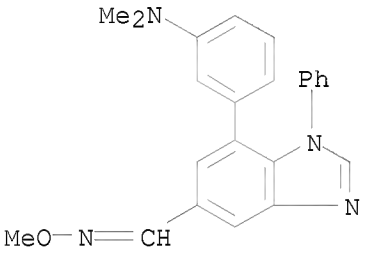
RN 851230-00-7 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-(3-cyanophenyl)-1-phenyl- (CA INDEX NAME)



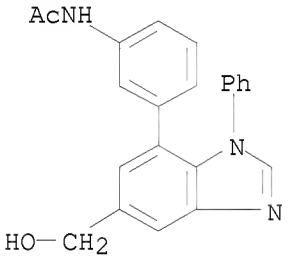
RN 851230-08-5 HCAPLUS
CN Acetamide, N-[3-[5-[(methoxyimino)methyl]-1-phenyl-1H-benzimidazol-7-yl]phenyl]- (CA INDEX NAME)



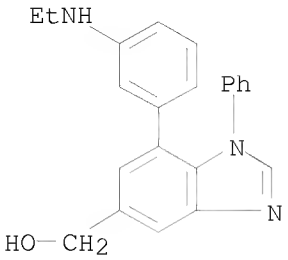
RN 851230-10-9 HCAPLUS
CN 1H-Benzimidazole-5-carboxaldehyde, 7-[3-(dimethylamino)phenyl]-1-phenyl-, O-methyloxime (CA INDEX NAME)



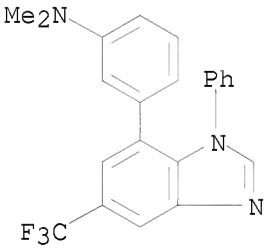
RN 851230-17-6 HCAPLUS
CN Acetamide, N-[3-[5-(hydroxymethyl)-1-phenyl-1H-benzimidazol-7-yl]phenyl]- (CA INDEX NAME)



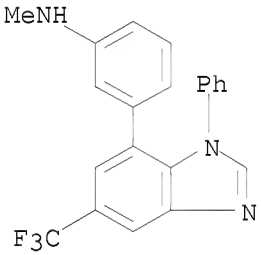
RN 851230-18-7 HCAPLUS
CN 1H-Benzimidazole-5-methanol, 7-[3-(ethylamino)phenyl]-1-phenyl- (CA INDEX NAME)



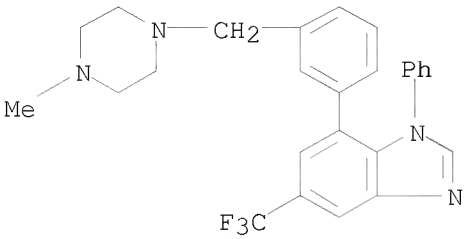
RN 851230-19-8 HCAPLUS
CN Benzenamine, N,N-dimethyl-3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



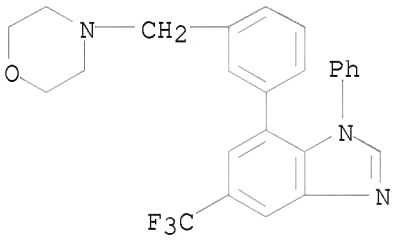
RN 851230-20-1 HCAPLUS
CN Benzenamine, N-methyl-3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



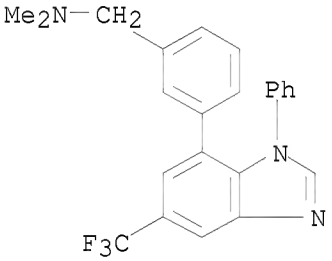
RN 851230-21-2 HCAPLUS
CN 1H-Benzimidazole, 7-[3-[(4-methyl-1-piperazinyl)methyl]phenyl]-1-phenyl-5-(trifluoromethyl)- (CA INDEX NAME)



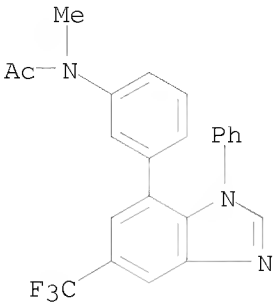
RN 851230-23-4 HCAPLUS
CN 1H-Benzimidazole, 7-[3-(4-morpholinylmethyl)phenyl]-1-phenyl-5-(trifluoromethyl)- (CA INDEX NAME)



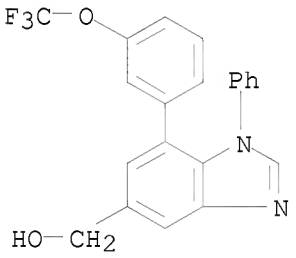
RN 851230-24-5 HCAPLUS
CN Benzenemethanamine, N,N-dimethyl-3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



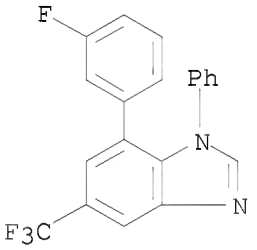
RN 851230-27-8 HCAPLUS
CN Acetamide, N-methyl-N-[3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]phenyl]- (CA INDEX NAME)



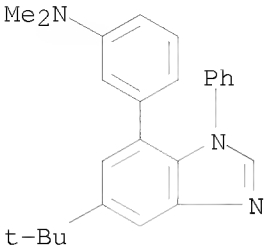
RN 851230-29-0 HCAPLUS
CN 1H-Benzimidazole-5-methanol, 1-phenyl-7-[3-(trifluoromethoxy)phenyl]- (CA INDEX NAME)



RN 851230-35-8 HCAPLUS
CN 1H-Benzimidazole, 7-(3-fluorophenyl)-1-phenyl-5-(trifluoromethyl)- (CA INDEX NAME)



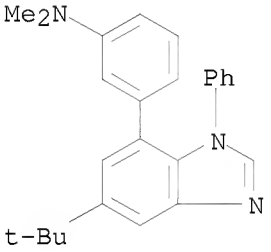
RN 851230-40-5 HCAPLUS
CN Benzenamine, 3-[5-(1,1-dimethylethyl)-1-phenyl-1H-benzimidazol-7-yl]-N,N-dimethyl- (CA INDEX NAME)



RN 851230-41-6 HCAPLUS
CN Benzenamine, 3-[5-(1,1-dimethylethyl)-1-phenyl-1H-benzimidazol-7-yl]-N,N-dimethyl-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

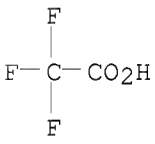
CM 1

CRN 851230-40-5
CMF C25 H27 N3

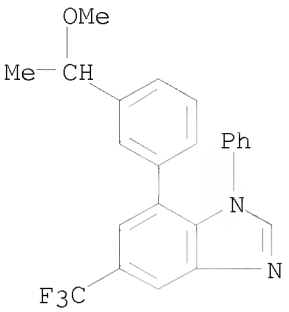


CM 2

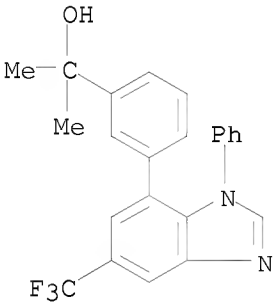
CRN 76-05-1
CMF C2 H F3 O2



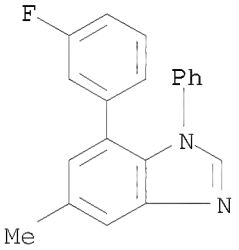
RN 851230-43-8 HCAPLUS
CN 1H-Benzimidazole, 7-[3-(1-methoxyethyl)phenyl]-1-phenyl-5-(trifluoromethyl)- (CA INDEX NAME)



RN 851230-56-3 HCAPLUS
CN Benzenemethanol, α,α-dimethyl-3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



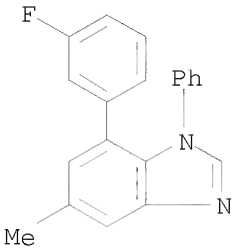
RN 851230-58-5 HCAPLUS
CN 1H-Benzimidazole, 7-(3-fluorophenyl)-5-methyl-1-phenyl- (CA INDEX NAME)



RN 851230-59-6 HCAPLUS
CN 1H-Benzimidazole, 7-(3-fluorophenyl)-5-methyl-1-phenyl-, 2,2,2-trifluoroacetate (1:1) (CA INDEX NAME)

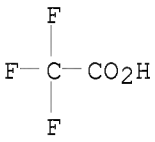
CM 1

CRN 851230-58-5
CMF C20 H15 F N2



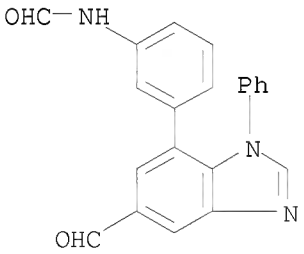
CM 2

CRN 76-05-1
CMF C2 H F3 O2

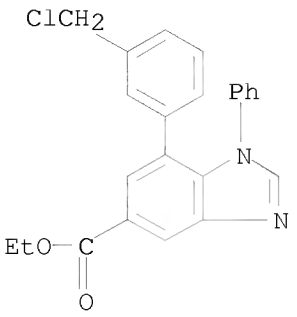


IT 851229-49-7P, 7-[3-(Formylamino)phenyl]-5-formyl-1-phenylbenzimidazole 851229-97-5P, 5-Ethoxycarbonyl-7-[3-(chloromethyl)phenyl]-1-phenylbenzimidazole 851230-22-3P, 7-[3-(Chloromethyl)phenyl]-1-phenyl-5-trifluoromethylbenzimidazole
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of 1,5,7-trisubstituted benzimidazole derivs. useful as modulator of GABAA receptor)

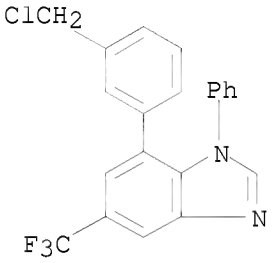
RN 851229-49-7 HCAPLUS
CN Formamide, N-[3-(5-formyl-1-phenyl-1H-benzimidazol-7-yl)phenyl]- (CA INDEX NAME)



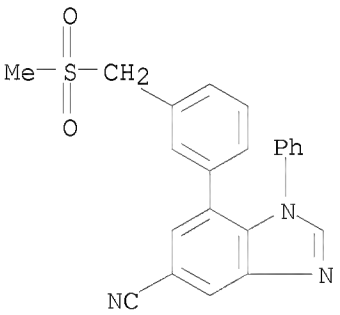
RN 851229-97-5 HCAPLUS
CN 1H-Benzimidazole-5-carboxylic acid, 7-[3-(chloromethyl)phenyl]-1-phenyl-, ethyl ester (CA INDEX NAME)



RN 851230-22-3 HCAPLUS
CN 1H-Benzimidazole, 7-[3-(chloromethyl)phenyl]-1-phenyl-5-(trifluoromethyl)- (CA INDEX NAME)



IT 851229-76-0
RL: RCT (Reactant); RACT (Reactant or reagent)
(reactant; preparation of 1,5,7-trisubstituted benzimidazole derivs. useful as modulator of GABAA receptor)
RN 851229-76-0 HCAPLUS
CN 1H-Benzimidazole-5-carbonitrile, 7-[3-[(methylsulfonyl)methyl]phenyl]-1-phenyl- (CA INDEX NAME)



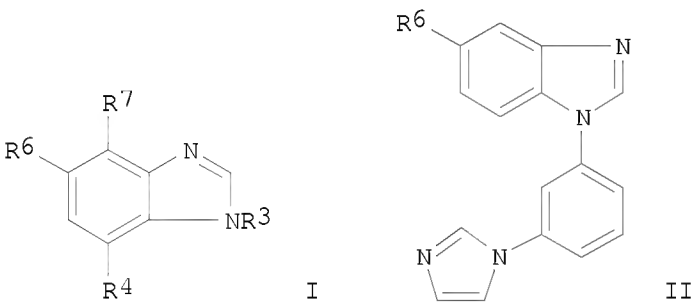
REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L12 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1996:580566 HCAPLUS

DOCUMENT NUMBER: 125:300997
ORIGINAL REFERENCE NO.: 125:56339a,56342a
TITLE: Benzimidazole compounds useful as benzodiazepine receptor ligands
INVENTOR(S): Teuber, Lene; Axelsson, Oskar; Watjen, Frank
PATENT ASSIGNEE(S): Neurosearch A/s, Den.; Meiji Seika Kaisha, Ltd.
SOURCE: U.S., 19 pp., Cont.-in-part of U.S. Ser. No. 207,774, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 5554630	A	19960910	US 1995-410572		19950324
ZA 9402079	A	19941024	ZA 1994-2079		19940324
US 5554632	A	19960910	US 1994-352585		19941209
PRIORITY APPLN. INFO.:			DK 1993-337	A	19930324
			DK 1993-1055	A	19930921
			US 1994-207774	B2	19940308

OTHER SOURCE(S): MARPAT 125:300997
GI

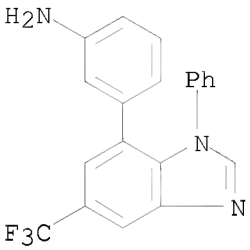


I II

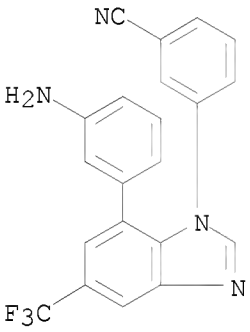
AB The invention discloses title compds. I [R3 = certain (un)substituted (hetero)aryl groups; R4 = H, NH2, NO2, cyano, halo, acylamino, (un)substituted aryl; or R4 forms bridges to aryl ring of R3; R6, R7 = H, halo, NH2, NO2, cyano, acylamino, CF3, (un)substituted aryl; or R6 and R7 form certain optionally heteroatom-containing bridges] and their pharmaceutically acceptable salts, as well as the medical use of a broader class of 1-arylbenzimidazoles, including I. The compds. are useful for the treatment of various central nervous system disorders such as epilepsy and other convulsive disorders, anxiety, sleep disorders, and memory disorders. For example, 2-amino-3'-iodo-4-(trifluoromethyl)diphenylamine (preparation given) underwent cyclocondensation with formic acid at reflux, and coupling with imidazole in the presence of K2CO3 and CuBr at 200°, to give title compound II [R6 = CF3]. In an in-vivo test for inhibition of [3H]-flunitrazepam specific binding to mouse forebrain GABAA receptors, II [R6 = CF3] had an ED50 of 7.3 mg/kg i.p., and II [R6 = Me] had an ED50 of 0.8 mg/kg i.p.

IT 159726-00-8P 159726-01-9P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of benzimidazole derivs. as benzodiazepine receptor ligands)
RN 159726-00-8 HCAPLUS
CN Benzenamine, 3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



RN 159726-01-9 HCAPLUS
CN Benzonitrile, 3-[7-(3-aminophenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]- (CA INDEX NAME)



L12 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER: 1995:252476 HCAPLUS
DOCUMENT NUMBER: 122:31527
ORIGINAL REFERENCE NO.: 122:6227a,6230a
TITLE: Preparation of benzimidazole derivatives for the treatment of central nervous system disorders.
INVENTOR(S): Axelsson, Oskar; Teuber, Lene; Watjen, Frank
PATENT ASSIGNEE(S): Neurosearch A/S, Den.; Meiji Seika Kaisha Ltd.
SOURCE: Eur. Pat. Appl., 35 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

EP 616807	A1	19940928	EP 1994-610012	19940311
EP 616807	B1	19980708		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
AU 9457521	A	19940929	AU 1994-57521	19940303
AU 675484	B2	19970206		
AT 168007	T	19980715	AT 1994-610012	19940311
ES 2119124	T3	19981001	ES 1994-610012	19940311
CA 2119511	A1	19940925	CA 1994-2119511	19940321
CA 2119511	C	20020716		
NO 9401052	A	19940926	NO 1994-1052	19940323
CN 1099391	A	19950301	CN 1994-103348	19940323
CN 1057088	C	20001004		
FI 9401378	A	19940925	FI 1994-1378	19940324
FI 113651	B1	20040531		
ZA 9402079	A	19941024	ZA 1994-2079	19940324
JP 07002838	A	19950106	JP 1994-78094	19940324
JP 3466265	B2	20031110		

PRIORITY APPLN. INFO.: DK 1993-337 A 19930324
DK 1993-1055 A 19930921

OTHER SOURCE(S): MARPAT 122:31527

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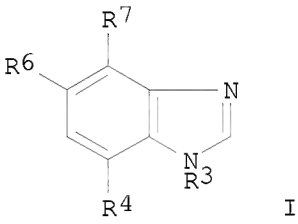


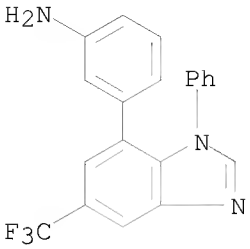
I

AB Benzimidazole compds. I (R3 = substituted Ph, pyridinyl, etc.; R4 = H, amino, nitro, etc.; R6, R7 = H, halo, cyano, nitro, etc.) were disclosed for the treatment of various central nervous system disorders such as epilepsy and other convulsive disorders, anxiety, sleep disorders and memory disorders.

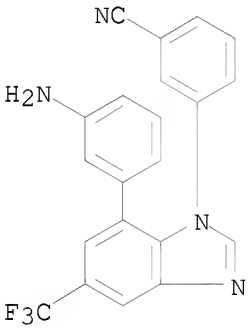
IT 159726-00-8P 159726-01-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of benzimidazole derivs. GABA receptor antagonists or agonists)

RN 159726-00-8 HCAPLUS

CN Benzenamine, 3-[1-phenyl-5-(trifluoromethyl)-1H-benzimidazol-7-yl]- (CA INDEX NAME)



RN 159726-01-9 HCAPLUS
CN Benzonitrile, 3-[7-(3-aminophenyl)-5-(trifluoromethyl)-1H-benzimidazol-1-yl]- (CA INDEX NAME)



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COST IN U.S. DOLLARS	SINCE FILE ENTRY	TOTAL SESSION
FULL ESTIMATED COST	19.04	596.01

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE ENTRY	TOTAL SESSION
CA SUBSCRIBER PRICE	-2.40	-7.20

STN INTERNATIONAL LOGOFF AT 14:00:00 ON 19 NOV 2008